

Table S2. Primers used for mutagenesis, RT-PCR and RT-qPCR

| Primer name | Sequence 5'-3' | Used for |
|---------------------------|---|---|
| BRAF_INS9nt_after_1517-as | AAAAATGAAGTAGGAGTACTCAGAGTACTCAGGAAAACACGACATGTGAATATCC | primer used for construction of the 9 nucleotide duplication in pENTR3C and in pCDNA3.2 vector |
| BRAF_ins9nt_after_1517-as | GGATATTCACATGTCGTTTTCCTGAGTACTCTGAGTACTCCTACTTCATTTTT | |
| BRAF_V600E-Fw | CCACTCCATCGAGAT TTCTCTGTAGCTAGACCAAAT | primer used for construction of the V600E mutation in pENTR3C and pCDNA3.2 vector |
| BRAF_V600E-Fw | ATTTTGGTCTAGCTACAGAGAAATCTCGATGGAGTG | |
| BRAF-Exon 11-Fw | ACACTTGGTAGACGGGAC TC | primer used or detection of the 9 nucleotide duplication in patient tumoral material and in cell lines by RT-PCR |
| BRAF-Exon 13-Rv | GGAGCCCTCACACCACT | |
| GADPH expression- Fw | TGCACCACCAACTGCTTAGC | Primers used for RT-qPCR of GAPDH |
| GADPH expression -Rv | GGCATGGACTGTGGTCATGAG | |
| BRAF- Exon12-FW | gcacctacacctcagcagtt | primer used for Sanger Sequencing of V600 and INS constructs. Primers for total cDNA sequencing available upon request. |
| BRAF-Exon-14-RV | gtggatgattgactggcgtg | |
| KIA1549 - BRAF- Fw | GAGGGACGCAGGAGATAAGA | primer used to check the presence of the reccurent fusion KIAA1549-BRAF |
| KIA1549 - BRAF - RV | CCAGGAAGAGCTCACGGATA | |